



ClarksonTM
CHEMISTRY & BIOCHEMISTRY
DEPARTMENT

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Postdoctoral and Ph.D. Positions Available at Clarkson University

The Department of Chemistry & Biochemistry at Clarkson University is seeking highly motivated candidates for one postdoctoral scholar position and two Ph.D. positions in the laboratory of Smart Polymeric and Supramolecular Systems (SmartPASS), directed by Dr. Xiaocun Lu. These positions are available immediately and offer a unique opportunity to engage in cutting-edge research in polymer mechanochemistry, mechanoresponsive biomaterials, and biomechanics.

Research Areas and Projects

- Design and synthesis of mechanically sensitive molecules (mechanophores).
- Investigation of mechanical transduction pathways across multiple scales in biomaterials.
- Development of sensors for biomechanics and cell mechanics.
- Conducting simulations using Density Functional Theory (DFT) and Molecular Dynamics (MD).

Minimum Qualifications

Postdoctoral Applicants

- Ph.D. in Organic Chemistry, Polymer Chemistry, Chemical Engineering, Materials Science, or related fields, conferred within the last three years.
- Demonstrated expertise in organic and polymer synthesis, as well as materials characterization.
- Strong academic record and communication skills.
- Experience with multi-step organic synthesis, polymer mechanical properties, fluorescent sensors, and computational modeling (DFT or MD) is highly desirable.
- Candidates who can start before February 1, 2025, will receive priority consideration.

Ph.D. Applicants

- B.S. or M.S. degree in Chemistry, Chemical Engineering, Materials Science, or related fields.
- Research experience in organic/polymer synthesis, soft materials characterization, or computational modeling is preferred.
- Strong academic record and proficiency in the relevant research areas.
- Applicants who are available to start before January 15, 2025, will receive priority consideration.

About the Lu Research Group and Clarkson University

The Lu Research Group at Clarkson University is an interdisciplinary team focused on the intersection of polymer mechanochemistry, biomaterials, and biomechanics. Dr. Xiaocun Lu, an Assistant Professor at Clarkson University, leads this collaborative research effort. The group's work spans from molecular design to advanced simulation techniques, contributing to innovations in mechanoresponsive materials, biomechanics, and advanced ultrasound imaging. More information is available on the group webpage, [click here](#).

Clarkson University, located in Potsdam, New York, offers a vibrant academic environment in a classic college town setting. Potsdam is known for its family-friendly atmosphere and modest cost of living, making it an attractive place for students and researchers alike.

Application Instructions

Postdoctoral Applicants: Please submit the following to Dr. Xiaocun Lu (xlu@clarkson.edu). Applications will be reviewed on a rolling basis until the position is filled.

1. Cover letter detailing your research interests, experience, and career goals.
2. A detailed CV, including a full publication list.
3. Three representative first-author publications.
4. Contact information for three references.

Ph.D. Applicants: Please send the following materials to Dr. Xiaocun Lu (xlu@clarkson.edu). Application review will begin immediately and continue until the positions are filled.

1. CV/Resume
2. Contact information for three references.
3. Academic transcripts.
4. A brief description of your research background and interests.
5. Proof of English language proficiency, TOEFL or IELTS (for international applicants)

This is an exciting opportunity to contribute to innovative research in a dynamic and supportive academic environment. We look forward to receiving your application!